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TWENTY-SEVENTH ANNUAL REPORT

OF THE

BOARD OF DIRECTORS

OF THE

LEHIGH VALLEY RAILROAD COMPANY

TO THE

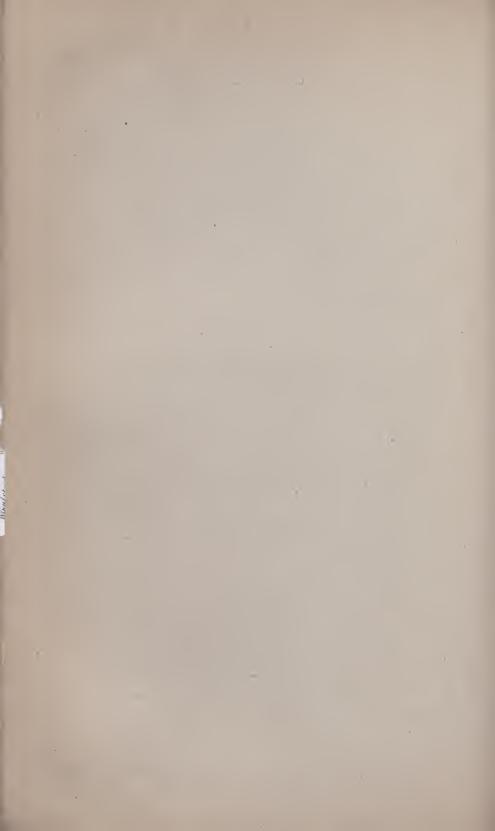
STOCKHOLDERS,

JANUARY 17TH, 1882.

PHILADELPHIA:

ALLEN, LANE & SCOTT'S PRINTING HOUSE, 229-231 SOUTH FIFTH STREET.

1882.



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1882.



OFFICERS

OF THE

LEHIGH VALLEY RAILROAD COMPANY,

JANUARY 17th, 1882.

President,
CHARLES HARTSHORNE.

Dice-President,
HARRY E. PACKER.

Treasurer,
LLOYD CHAMBERLAIN.

Secretary, JOHN R. FANSHAWE.

General Inperintendent and Chief Engineer, ROBERT H. SAYRE.

Directors :

DAVID THOMAS,
ASHBEL WELCH,
WILLIAM L. CONYNGHAM,
ARIO PARDEE,
WILLIAM A. INGHAM,
GEORGE B. MARKLE,

ROBERT H. SAYRE, HARRY E. PACKER, JAMES I. BLAKSLEE, R. ASA PACKER, ELISHA P. WILBUR, JOSEPH PATTERSON.

ANNUAL REPORT

OF THE

LEHIGH VALLEY RAILROAD COMPANY.

January 17th, 1882.

5.791.376 tons

Our business has shown a gratifying increase in all departments as compared with previous years, with the single exception of our passenger receipts during the Centennial season.

The coal tonnage for the last year was as follows:-

Anthracito

Total,		itun	ii	10	us.	, .														•				79,325 tons
1878,																	٠	٠	•	٠	•	•	•	5,570,701 tons
1878,	18	77,			٠																	٠		4,391,286 tons
1879,	18	378,								٠	٠	٠								٠			٠	3,479,593 tons
$1880, \dots, 4,672,724 \text{ tor}$	18	379,								٠				٠	٠					٠				4,415,285 tons
1881,	18	880,																						4,672,724 tons
	18	881,																						5,870,701 tons

The above statement for the past year does not include 393,-976 tons of anthracite coal and 372,647 tons bituminous coal, which passed over the Pennsylvania and New York Railroad but not over any part of the Lehigh Valley Railroad proper, thus making the total coal tonnage of the two roads for 1881, 6,637,324 tons.

Our income from all sources including interest received from investments, &c., amounted to Operating expenses of the road,	\$10,392,126 00 4,648,083 78
Leaving	\$5,744,042 22

Against which there have 1 \$5,744,042 22
riganist which there has been charged
Interest on bonds (including interest due December 1st. 1881).
1st, 1881),
General expense, interest on floating debt, Pennsylvania and New Jersey State taxes less on Maria
Amount charged for estimated accumulated downsia
tions,
Balance to be carried to the credit of our Profit and Loss account, \$110,034 44
At the close of our fiscal year our capital account was as follows:—
Preferred stock,
First mortgage, six per cent. bonds (coupon and regis-
second mortgage, seven per cent. bonds, registered, due
in 1910,
Sterling,
Coupon,
Annuity,
Floating debt, less cash on hand, none
\$52,766,195
In addition to the

In addition to the above there are outstanding \$2,500,000 of the five per cent. bonds of the Easton and Amboy Railroad Company due in 1920, the interest upon which is charged in our accounts.

One hundred and fifty of the sterling bonds were drawn, payable December 1st, 1881, leaving \$4,013,000, bearing interest from that date.

We have sold to the Pennsylvania and New York Canal and Railroad Company a proportional amount of our investment in the stock of the Geneva, Ithaca and Sayre Railroad Company which was purchased some years ago for our joint benefit. The severe competition in freights from the West participated in by all the trunk lines has very seriously interfered with our income from that source. If good rates had been obtained on the portion carried by us, our freight receipts would have been

much larger than they now appear.

The large business both in coal and miscellaneous freights done by the Company and its connections during the past year has very actively employed all our engines and cars, and has made it necessary to provide means for their immediate increase. Our several shops are building new locomotives according to their capacities, and others have been ordered from regular builders. We have also expended during the year \$481,335.46 for new cars, besides repairs and the maintenance of the old numbers, and are now arranging for building one thousand additional twenty-ton coal cars.

The towing and freight lines at Perth Amboy continue very successful. The wisdom of these investments becomes daily more apparent, both as regards the profits resulting from them and the

control they give us over our shipping arrangements.

Our various interests have also united in establishing a transportation line on the Lakes between Buffalo and Chicago. Two vessels are now owned by us, and negotiations are in progress to secure four others. It is thought that this enterprise is quite an important one, and will be of great advantage to us in connection with our railroad lines.

No change has taken place during the year in the Board or

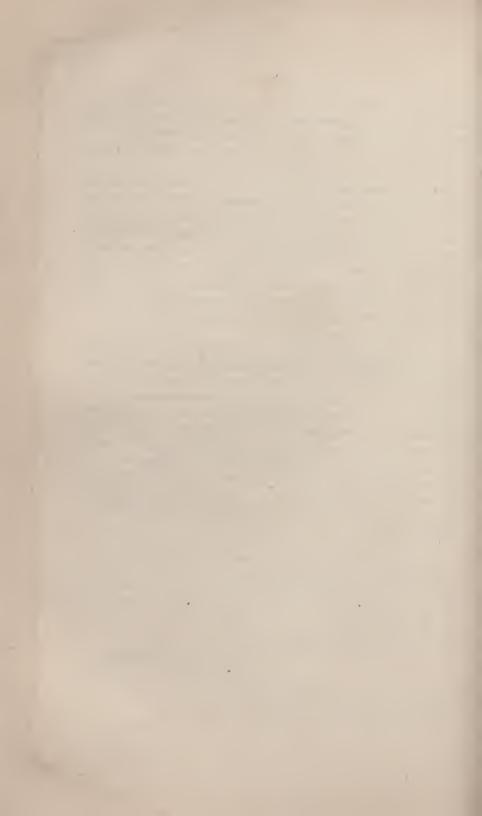
general officers.

For further information attention is called to the reports of the General Superintendent and Chief Engineer; of the President and the General Superintendent of the Pennsylvania and New York Canal and Railroad Company; and of the General Superintendent of the Lehigh Valley Coal Company, published herewith.

By order of the Board.

CHAS. HARTSHORNE,

President.



ANNUAL REPORT

OF THE

GENERAL SUPERINTENDENT AND CHIEF ENGINEER

OF THE

Lehigh Valley Railroad Company,

For the Fiscal Year ending November 30th, 1881.

BETHLEHEM, PA., November 30th, 1881.

Charles Hartshorne, Esq., President,

Sir:—The following report of the operations of the Lehigh Valley Railroad, for the fiscal year ending November 30th, 1881, is respectfully submitted:—

The anthracite coal tonnage for the year is 25.72 per cent. heavier than that of any previous year in the history of our road.

This result has been attained notwithstanding only half time was made during seventeen weeks, or about one-third of the year.

The total amount of anthracite coal transported over the main line and branches for the year was 5,791,376.08 tons, an increase compared with the previous year of 1,184,961.08 tons, or 25.72 per cent., and an increase over any previous year of 1,429,251.19 tons.

The coal was derived from the following sources:—

Regions.	1880.	1881.	INCREASE.
Wyoming, Hazleton, Upper Lehigh, Beaver Meadow, Mahanoy, Mauch Chunk,	1,162,706.06 2,125,104.16 	1,356,507.09 2,674,077.10 29.06 502,631.04 1,257,933.10 197.09	193,801.03 548,972.14 29.06 61,039.07 381,073.04 45.14
Totals,	4,606,415.00	5,791,376.08	1,184,961.08

And was distributed as follows:—

POINTS OF DELIVERY.	1880.	1881.	INCREASE.	DECREASE.
At Mauch Chunk, On line of road above Mauch	3,904.17	5,333.07	1,428.10	
Chunk, On line of road above Mauch	0.599.01	11,404.07	1,822.06	
Chunk for use L.V. R. R., To P. and N. Y. R. R.,	95,627.06	113,722.01	18,094.15	
"Northern Central R. R., Sunbury, Hazleton and	410,700.16 17,445.01	712,014.02 16,194.05	301,313.06	1,250.16
Wilkesbarre R. R., L. and S. Div. Cent. R. R.	70 017 11	101,447.00	28,629.09	
" Catawissa R. R	8,539.11	13,010.13	4,471.02	
" Lehigh Canal at M. Chunk, " Lack. and Bloomsb'g R. R.,	59,006.00	5.16 66,284.00	5.16 7,278.00	
тина, and Reading R. R.		245,275.13 8,361.16	91,213.08 8,361.16	
Local east of Mauch Chunk, East of Mauch Chunk for use		71,934.08	18,445.12	
L. V. R. R.,	96,380.13 717,171.18	123,889.02 762,042.02	27,508.09 44,870.04	
"Schuylk'l and Lehigh R.R., "Ironton R. R.,	6 964 07	72.06 6,529.03	49.15	
" Catasauqua and Fogels'e R	7,876.13	9,570.14	1	
" Perkiomen R. R	468.08 86,011.19	134.12	1,694.01	333.16
and R. R. R.	104,469.03	148,965.18	62,953.19	
" Port Del. (Morris Canal), . " Morris and Essex Div. D.,	257,499.09	135,637.13 298,951.04	31,168.10 41,451.15	
L. and W. R. R.,	78,437.16	78,213.19		223.17
"Central R. R. of N. Jersey, "New Jersey Div. L.V. R.R.,	170.14	1,257,176.10 1,002.18	299,131.16 832.04	
	1,408,422.11	1,604,202.19	195,780.08	
Totals,	4,606,415.00	5,791,376.08	1,184,961.08	
Total Canal,	59,006.00 4,547,409.00	66,284.00 5,725,092.08	7,278.00 1,177,683.08	
Grand Total,	4,606,415.00	5,791,376.08	1,184,961.08	

The amount of coal delivered to furnaces, rolling-mills, and manufacturing establishments on our line east of Mauch Chunk was 762,042 tons, an increase of 44,870 tons, or 6.26 per cent.

Coal delivered to Pennsylvania and New York Railroad this year amounted to 712,014 tons, an increase of 301,313 tons, or 73.37 per cent.

Coal delivered to Belvidere Division of Pennsylvania Railroad shows an increase of 299,132 tons, or 31.22 per cent.

Coal delivered to Morris Canal shows an increase of 41,452 tons, or 16.10 per cent.; to Perkiomen Railroad an increase of 73.19 per cent.; and to Lackawanna and Bloomsburg Division of Delaware, Lackawanna and Western Railroad, an increase of 59.21 per cent.

Tons of Anthracite Coal carried one Mile.

Region.	1880.	1881.	INCREASE AND Decrease.
Wyoming,	37,792,385.08	32,008,420.16	5,783,964.12
	51,145,319.04	64,240,943.09	13,095,624.05
	9,950,444.12	11,362,030.19	1,411,586.07
	34,793,791.02	48,825,849.00	14,032,057.18
Total above Mauch Chunk,	133,681,940.06	156,437,244.04	22,755,303.18
" below " "	241,621,185.03	284,189,455.00	42,568,269.17
Grand total,	375,303,125.09	440,626,699.04	65,323,573.15

The number of tons of anthracite coal carried one mile was 17.41 per cent. more, and the rate received per ton per mile 6.28 per cent. greater than in 1880.

Miscellaneous freight aggregates 202,299,285 tons carried one mile, being an increase of 21.74 per cent. over last year.

The rate obtained per ton per mile was $\frac{8}{100}$ of a cent less than the previous year. Of the 3,486,432 tons of freight moved, there were 395,107 tons of pig iron, 165,726 tons of rails, 780,643 tons of iron ore, 150,228 tons of lime stone, 148,238 tons of lumber, 10,886 tons of slate, 22,397 tons of live stock, and 290,638 tons of oil, the balance being grain, merchandise, and miscellaneous articles. This branch of our business shows a larger tonnage

and greater receipts than ever before, and amounted to \$2,126,-396.72, being an increase as compared with 1880 of $13\frac{13}{100}$ per cent.

Receipts from passengers, mail, and express, show an increase of \$88,058.15, or 16.59 per cent. Passengers carried one mile, 23,123,806, an increase of 16.71 per cent.

The total road receipts and expenses for the year are as follows:—

FROM TRANSPORTATION OF	GROSS RECEIPTS.	EXPENSES.	NET RECEIPTS.
Coal,	\$6,678,590 27 2,126,396 72 618,870 77	1,198,133 89	\$3,651,306 93 928,262 83 196,204 22
Totals,	\$9,423,857 76	\$4,648,083 78	\$4,775,773 98
	7,762,990 90	4,002,357 60	3,760,633 30
Increase,	\$1,660,866 86	\$645,726 18	\$1,015,140 68
	21.39	16.13	26.99

Cost of operating road, 49.32 per cent. of receipts, a decrease of 2.24 per cent. from last year.

There has been charged to expenses, the steel rails substituted for iron; the renewal of wooden bridges at Penn Haven, Drake's Creek, Mill Creek, and other points with iron and stone; the increase of shop facilities at South Easton, Packerton, Delano, Weatherly, and Hazleton; dwelling houses at Hazleton and Delano; the branch railroad to Clinton, N. J., and new machinery in our various shops, together with the balance of cost of changing location of road between Penn Haven and Weatherly, an aggregate of \$434,495.76.

BRIDGES.

The following bridges have been built during the year:-

An iron girder bridge for one track over Belvidere Division of Pennsylvania Railroad at Phillipsburg, to replace a wooden trussed girder.

Iron girder bridges for two tracks over public road at Allentown, and for two tracks over farm road above Fullerton.

Also iron girder bridges to replace wooden stringers on the two main tracks over the opening at Allentown Furnace.

Also an iron truss bridge to replace the wooden truss bridge for public road over railroad at Catasauqua.

A new double track iron bridge of four spans, each of one hundred feet, to replace the wooden bridge across the Lehigh at Penn Haven Junction. This bridge has been built on the new location about one mile above the old structure, and will save about one mile of track.

The arch culvert over Drake's Creek, to replace the wooden trussed girder bridge, has been completed.

Iron girder bridges for two tracks to replace the wooden braced girders over Susquehanna street, White Haven.

A new iron lattice girder bridge for two tracks, of three spans, each forty-five feet, across Mill Creek, to replace the old single track wooden truss bridge.

A double track trestle work across the canal west of Mill Creek, to replace the old single track wooden truss bridge. This will be replaced by an embankment in the future.

An iron girder bridge to replace wooden stringer bridge at Penrose's Cut on Beaver Meadow Division.

Buildings.

The following buildings have been erected during the year:-

At Perth Amboy, a brick boiler-house, forty by forty-five feet, for supplying steam to the hoisting engines on the docks. Also, a scale-house, seven by twenty-four feet.

At Easton, a house for car inspectors, and a house for mail and train men.

At Glendon, a new telegraph and dispatcher's office.

At Bethlehem, a house for watchman at Wyandotte street crossing.

At Allentown, a new baggage room.

At Bowmans, a new station house for passengers and freight, and a storehouse for paint.

At Packerton the following, all of brick:—An extension to blacksmith shop two hundred and ten by forty-one feet. A new

paint and oil house forty-eight by twenty-eight feet. A new machine shop fifty by forty feet, two stories high. A new forwarding office thirty-eight by thirty-eight feet, two stories high. A new boiler and pump house forty by twenty feet.

New station houses at Bear Creek Junction and Bear Creek.

At Wilkesbarre and Pittston addditions to the freight depots.

At Port Bowkley a new station house.

The extension to the engine-house at Wilkesbarre has been completed.

At Weatherly the following new frame buildings for car repairs, to replace those burned there on July 8th, 1880, viz:—A car-shop two hundred and ninety-six by sixty feet, and a smith shop, machine shop, and engine-room one hundred and seventy-six by forty feet.

Also a boiler-house eighteen by thirty-six feet, of stone with stack of brick.

And at Weatherly Machine Shop a frame house, covered with corrugated iron, for storing patterns, and office for the foundry, twelve by fourteen feet.

On Mahanoy Division, at Delano, eight blocks of frame dwell-

ing houses for use of employés.

Also a carpenter shop one hundred and fifty by fifty feet, with engine-room thirty-six by sixteen feet, and boiler-house forty by twenty-six feet, all of stone.

On Hazleton Division, at Hazle Creek Bridge, a telegraph office twelve by fourteen feet, and a tool house twelve by sixteen feet.

Also a depot forty-two by sixteen feet, for freight and passengers at Freeland.

WATER-STATIONS.

On New Jersey Division a new frame engine-house twelve by twenty-four feet has been built for the steam-pump at Bound Brook.

The two new tanks at Neshanic, in progress at time of last report, have been completed and a new pump set up for their supply.

A new water wheel and wheel house have been built at Flax Mill tank.

A new water-station has been erected at Phillipsburg, supplied

by water pumped from Morris canal.

On Wyoming Division a new water-station has been built at Bridgeport, supplied from a small reservoir built on the mountain stream.

On Mahanoy Division a new tank has been built at Delano, with a new reservoir and a steam-pump.

Also a new stand-pipe at Yatesville.

On Hazleton Division a new water-station has been put up at Hazle creek bridge.

At Hazleton an additional well has been bored and has increased our supply at that point, but the unprecedented drought of the past year rendered all efforts to keep up a supply of water for the town, shops, and locomotives ineffectual, and we were obliged to resort to hauling water to keep running.

This question of an adequate supply of water for the future on all divisions of the road is a serious one, and several plans to

meet the demand are now under consideration.

TELEGRAPH.

During the past year we increased our telegraph lines by one wire from Easton to Coplay, 21.9 miles, and one wire from Delano to Mount Carmel. with a new line of poles from Brownsville to Centralia.

The Hazleton Division wire has been extended from Jeddo to Freeland.

We have during the year purchased from Western Union Telegraph Company, the line of poles along our road from Onoko to White Haven, 24 miles.

EQUIPMENT.

Our locomotive equipment has been increased during the year by thirteen (13) engines, all of which were built at our own shops.

We have increased our stock of cars as follows:-

BUILT AT OUR OWN SHOPS.

Passenger cars,	3												
Baggage "	3												
Gravel "	34												
Eight-wheeled supply cars,	14												
" " water "	5												
Wreck and tool "	4												
Eight-wheeled caboose cars,	5												
" " gondola ears,	112												
" " house "	165												
" " lumber-house cars,	100												
Less cars put out of service as follows:—													
Four-wheeled caboose cars,	3												
Eight-wheeled platform cars,	52												
In addition to the above we have built at Packerton to repla	ce												
cars worn out and broken up:—													
Four-wheeled coal cars,	372 -												
Eight-wheeled house cars,	$\frac{372}{23}$												
Eight-wheeled house cars,													
Eight-wheeled house cars,	23												
Eight-wheeled house cars,	23 10												
Eight-wheeled house cars, " " platform cars, " " gondola "	23 10 15												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock "	23 10 15 1												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose "	23 10 15 1 6												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars,	23 10 15 1 6 1 1 14												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose "	23 10 15 1 6 1												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars,	23 10 15 1 6 1 1 14												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars, Lime " We have also built for other parties:—	23 10 15 1 6 1 1 14 8												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars, Lime " We have also built for other parties:— Four-wheeled coal cars, Eight-wheeled " (40,000 lbs. capacity),	23 10 15 1 6 1 1 14												
Eight-wheeled house cars, " " platform cars, " " gondola " " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars, Lime " We have also built for other parties:— Four-wheeled coal cars, Eight-wheeled " (40,000 lbs. capacity), " " house cars,	23 10 15 1 6 1 1 14 8												
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Eight-wheeled house cars, " " platform cars, " " gondola " " bark " Six-wheeled platform " Eight-wheeled stock " " caboose " Gravel cars, Lime " We have also built for other parties:— Four-wheeled coal cars, Eight-wheeled " (40,000 lbs. capacity), " " house cars, " " platform cars, " " gondola " " stock " " " caboose "	23 10 15 1 6 1 1 14 8 8												
Eight-wheeled house cars, " " platform cars, " " gondola " " bark " Six-wheeled platform " Eight-wheeled stock " " " caboose " Gravel cars, Lime " We have also built for other parties:— Four-wheeled coal cars, Eight-wheeled " (40,000 lbs. capacity), " " house cars, " " platform cars, " " gondola " " stock " " " caboose " Four-wheeled mine " Four-wheeled mine " Four-wheeled " Earn-wheeled " Four-wheeled wine " Four-	23 10 15 1 6 1 1 14 8												

Number of cars of all kinds repaired at our various shops during the year, 185,779.

There were cast at our Hazleton foundry:-

Our equipment is now as follows:-

	ON LAST REPORT.	INCREASE.	Decrease.	Nov. 30th, 1881.
				1
Engines of all classes,	255	13		268
Passenger cars,	 70	3		73
Pay cars,	38	3		41
Baggage and express cars,	 166	34		200
Gravel cars,		14		14
Eight-wheeled supply cars,		465		1,780
" house cars,	1	100		100
Stock cars, · · · · · · · · · · · · · · · ·	13			13
Bark cars,	50			50
Eight-wheeled water cars,		5		5
Wreck and tool cars		4		30
Eight-wheeled ram cars,		2		2
Four-wheeled platform cars,	12			12
Six-wheeled platform cars,			52	100
Eight-wheeled platform cars,		*** *	3	375
Four-wheeled caboose cars,				1
Six-wheeled caboose cars,		5		50
Eight-wheeled caboose cars,		9		44
Lime cars,	OFF	412		1,062
Gondola cars,	7 70	112		150
Tunnel coal cars,	24,465			24,465
Coan cars, rated as four-whosted,	 1 2,100	1		

RAILS.

The steel rails in track above the scale at Packerton have up to this date had a tonnage of 59,531,115 tons of coal and cars, and an estimated additional tonnage of 10,000,000 tons of freight and cars over them, and are still in good condition.

A slight modification has been made in our standard rail, improving the shape of the head, conforming more nearly to the cross section of the wheels which roll upon them. The weight is now sixty-seven pounds per yard. The joint has also been strengthened.

We have steel rails in use now as follows:-

MILES OF STEEL TRACK.	ON LAST REPORT.	LAID AND RELAID THIS YEAR.	TOTAL NOW IN USE.
On New Jersey Division, On Lehigh Division, On Wyoming Division, On Beaver Meadow Division, On Hazleton Division, On Mahanoy Division,	103.98 104.98 58.65 37.07 38.18 54.07	12.05 4.64 2.01 1.31 7.26 17.98	116.03 109.62 60.66 38.38 45.44 72.05
Totals,	396.93	45.25	442.18
On P. and N. Y. C. and R. R., Wilkesbarre to L. and B. Junction,	14.49	1.12	15.61

We have now a continuous steel track as follows:-

On the entire main line from Perth Amboy to Lackawanna and Bloomsburg Junction, except on New Jersey Division, where we have yet five and one-half miles of iron in the west-bound track.

On Beaver Meadow Division, from Penn Haven Junction to Leviston.

On Hazleton Division, on the whole of the main track, from Hazle Creek bridge to Tomhicken.

On Mahanoy Division, on the whole of the main track, from Black Creek Junction to Mount Carmel; also on Mahanoy City branch to Mahanoy City, and 3.22 miles on Ashland branch.

There are now in use on all the divisions:-

139.88 miles of single track,

166.71 miles of double track, equivalent to 333.42 miles of single track; in addition to which there are

15.66 miles of second track laid, but used as sidings, and

218.55 miles of sidings.

Total, 707.51 miles, an increase during the year of 19.81 miles, caused by extension of second track and sidings, and building new sidings and branches, as follows:—

On New Jersey Division, a branch track has been graded and laid from Landsdown to Clinton, 2.05 miles in length.

In Perth Amboy yard, 1.07 miles of additional sidings have been graded and laid, and at Raritan siding 1.49 miles.

New sidings have been graded and laid at Landsdown, Midvale, Green's Bridge, and Phillipsburg, aggregating in length 0.51 miles.

On Lehigh Division, at Allentown the sidings have been changed and relaid, increasing their length 0.50 miles.

Below Lehighton the main tracks have been changed and the former down track is now used as a siding for 0.65 miles.

Below Bethlehem Iron Works a siding has been graded and laid for 0.55 miles, and at Laury's for 0.59 miles.

2.05 miles of additional sidings have been graded and laid in Packerton yard. Sidings have also been extended at Easton, Bethlehem, East Penn Junction, Biery's Bridge, Coplay, Slatington, and Mauch Chunk, amounting in all to 1.13 miles.

On Wyoming division, 0.47 miles of second track have been graded and laid east of Fairview, and sidings have been graded and laid at White Haven, Fairview, and Wilkesbarre, amounting in all to 0.65 miles.

On Pennsylvania and New York Canal and Railroad, between Wilkesbarre and Lackawanna and Bloomsburg Junction, 0.21 miles of new second track has been laid across the new bridge and the canal at Mill creek, and sidings aggregating in length 1.79 miles have been graded and laid near Wilkesbarre and at Swing Bridge.

On Hazleton Division, near Stockton, about 3000 feet of the double track main line have been moved further north to avoid possible caving in of the surface. The branch to Hazleton, No. 3 Colliery, has been changed, and sidings have been graded and laid at Hazleton and Lumber Yard and to several collieries. Total increase 3.14 miles.

On Mahanoy Division new sidings have been graded and laid at Black Creek, Delano, Meyersville, Shenandoah, Centralia, and Mount Carmel, and on Logan, Morris Ridge, Continental and Ashland branches. Total increase 4.62 miles.

There are also on the main line and branches 5.22 miles of grading complete and ready for track, as follows:—

On Wyoming Division,	1.22 miles
On Hazleton Division (from Harleigh to mouth of Cranberry creek),	3.80 "
On Beaver Meadow Division,	0.20 "
Total,	5.22 miles

The following materials were used for repairs and construction:—

Division.	STEEL RAILS.	IRON RAILS.	SWITCH FRAMES	Frogs.	Cross-	PAIRS OF SPLICES.	KEGSOF SPIKES.
New Jersey, Lehigh,	2,350 $2,032$ $2,516$ 516	129	61 18 56 9	136 40 56 53	80,167 61,948 22,193 33,497 15,313 45,895	2,019 1,855 1,747 645	518 320 313
Totals,	16,334	5,835	252	419	259,013	11,461	2,085
P. and N. Y. C. and R. R., Wilkesbarre to L. and B. Junction,		679	6	13	11,736	695	94

Our shipping docks and coal stocking trestling at Amboy begin to need so extensive repairs that within the next three years it will almost amount to rebuilding the stocking trestles and tunnels. To do this without interference with the daily business will require the building of an entire new dock and trestling to be used while the present docks, three in number, are being rebuilt, one at a time. In lieu of this it is proposed to build new stocking trestling with tunnels underneath, separate and distinct from the shipping wharves, where we may stock some 250,000 tons, and with such facilities for reloading the coal as will materially lessen the cost thereof, and reload and ship much more rapidly.

The large increase in our tonnage during the past year makes it a necessity to enlarge inaterially our yard room and tracks at Packerton. Ample ground has been purchased for this purpose, and plans matured for remodeling the yard in such manner as will enable us to add from year to year all that will ever be likely to be required. Some of the preliminary work is now being

done, but it will require all of the coming year to complete what is wanted for immediate use; this can be added to as the future requires.

Our coal tonnage east of Mauch Chunk, together with weight of cars, amounted to 7,500,000 tons; this passed over and was weighed on one scale. A second scale should be erected to take a part of this tonnage, with the increase that may be reasonably looked for.

There being but the two main tracks between East Mauch Chunk and Mauch Chunk, as well as over the bridge below Mauch Chunk, frequent delays to many of our trains are unavoidable. To obviate this difficulty, which is serious, it is proposed to build—first, an additional track across the river; next, a third track between the stations of Mauch Chunk and East Mauch Chunk.

The work of changing the road between Penn Haven and Black Creek Junction is about completed, and fully meets our expectations. The trains have been increased about 25 per cent. and we have but one bridge to maintain, instead of five as formerly.

The Bear Creek branch, spoken of in last report, has been extended some four miles by the owners of the timber. Three saw-mills are now in operation upon it, also a planing-mill, &c., &c. The tonnage from the branch last year was about 19,000 tons.

The necessity for some better and more economical mode of surmounting Wilkes-Barre mountain with our south-bound trade still exists in a more aggravated form.

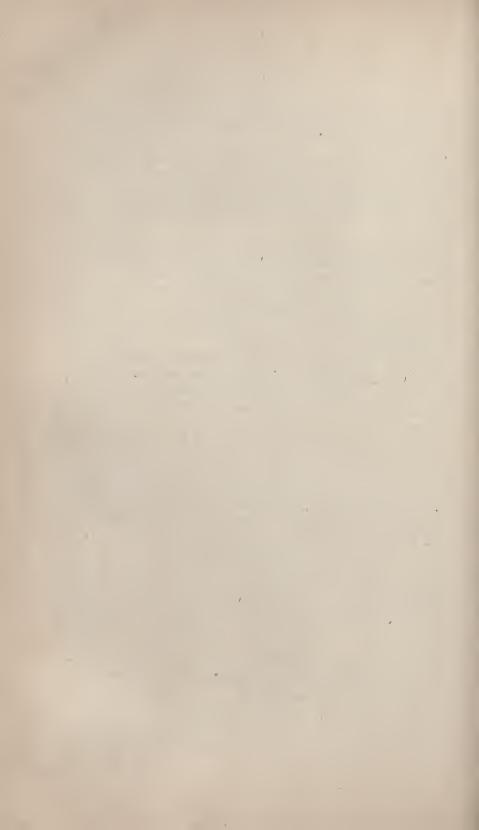
The condition of the relief fund is as follows:—

Balance on hand November 30th, 1880	10,710 29
Contributed by the companies	
Disbursements,	22,590 65

There were three calls made in 1881, the number contributing to the last call having been 1997.

Very respectfully,

ROB'T H. SAYRE, Superintendent and Engineer.



REPORT

OF THE

PENNSYLVANIA NEW YORK

CANAL AND RAILROAD COMPANY.

OFFICERS AND DIRECTORS

OF THE

PENNSYLVANIA NEW YORK

CANAL AND RAILROAD COMPANY.

President,
R. ASA PACKER.

vice-President,
ELISHA P. WILBUR.

CHARLES HARTSHORNE.

General Superintendent, WILLIAM STEVENSON.

Directors :

ROBERT H. SAYRE, CHARLES HARTSHORNE, VICTOR E. PIOLLET, GARRETT B. LINDERMAN, HARRY E. PACKER, ROBERT LOCKHART,

WILLIAM II. SAYRE, ELISHA P. WILBUR, JAMES I. BLAKSLEE, IIOWARD ELMER, ELISHA A. HANCOCK, FREDERIC MERCUR.

ANNUAL REPORT

OF THE

PENNSYLVANIA AND NEW YORK

CANAL AND RAILROAD COMPANY.

JANUARY 9th, 1882.

The business of the road for the past year has been quite satisfactory.

The total coal tonnage was —

Anthracite, Bituminous,										1,108,056.10 tons.
										1,527,607.09 "

of which 712,014.02 tons anthracite coal were received from the Lehigh Valley Railroad, the remainder being derived from other sources.

The earnings and expenses for the fiscal year just closed were as follows:—

From	
Transportation of coal,	\$1,339,497 23
" freight,	701,922 86
" passengers, express, and mail,	179,248 62
Canal,	127 70
Miscellaneous,	23,288 09
	\$2,244,084 50
Less operating expenses, including depreciation of equipment, &c.	1,243,378 74
Making the net receipts,	\$1,000,705 76

This amount provides for State and other taxes, interest on bonds, interest on floating debt, &c., and has also enabled the directors to declare a dividend of 10 per cent. to apply to the arrearages on preferred stock.

During the year it was considered expedient to take part in lake transportation, by which we could transport coal west from

Buffalo to Chicago and bring grain or other freights east, and thus add to the influence and business of our road and its connections. Three vessels were chartered for the season and subsequently two were purchased. While there has been a small deficit in the year's business, yet taking everything into consideration the experiment has been successful, and it is now proposed to add to the fleet by the purchase of four additional vessels, which would provide facilities sufficient for the carrying of at least 125,000 tons of coal during the coming year.

Considerable expenditures have been made during the year for additional equipment, among which there were 1198 gondola

cars, costing \$605,676.03.

The road and equipment of the Company have been severely strained during the past year in order to carry the large business. It is intended to push forward as rapidly as possible the completion of the second track, and in order to provide more motive power arrangements have been made for the purchase of thirty additional locomotives, as requested by the Superintendent in his report herewith submitted.

In order to reach the coal properties at West Pittston belonging to the Lehigh Valley Coal Company, it has been considered advisable to build a bridge across the Susquehanna river at Coxton and a branch road on the west side of the river.

Some years since the Lehigh Valley Railroad Company, acting jointly for our two roads, purchased a controlling interest in the Geneva, Ithaca and Sayre Railroad Company. The directors of this Company have just assumed their proportionate share of this interest, and the following resolution is submitted to the stockholders for their action.

Resolved, That the purchase from the Lehigh Valley Railroad Company of an interest in the Geneva, Ithaca and Sayre Railroad Company, as authorized and reported by the Board of Directors and heretofore consummated, be and the said purchase is hereby approved and ratified.

For further details of the business attention is called to the accompanying report of the General Superintendent.

By order of the Board,

R. ASA PACKER,

President.

Office of the Superintendent, Penna. and N. Y. C. & R. R. Co., Sayre, Pa., November 30th, 1881.

R. Asa Packer, Esq., President:

Sir:—The following report of the operations of the Pennsylvania and New York Canal and Railroad Company for the year ending November 30th, 1881, is respectfully submitted.

COAL TONNAGE.

The total amount of coal transported during the year was 1,527,607.09 tons, an increase of $33\frac{88}{100}$ per cent. from the previous year.

The following tables give details of production and distribu-

tion as compared with the year previous:-

Total coal tonnage for 1881 compared with previous year—

	1880.	1881.	INCREASE & Decrease.	
	Tons. Cwt.	Tons. Cwt.	Tons. Cwt.	
Anthracite,	705,464.05 435,516.15	1,108,056.10 419,550.19	402,592.05 15,965.16	
Total,	1,140,981.00	1,527,607.09	386,626.09	

Per centage of increase in total coal tonnage, 33 88 100.

The anthracite tonnage was derived from the following sources:—

	1880.		188	81.	INCREASE & Decrease.	
REGIONS,	Tons. C	WT.	Tons.	CWT.	Tons.	CwT.
Wyoming,	628,831 25,415 	3.12 3.16	52, 5,	049.15 704.11 79.08 388.12 834.04	2	6,217.17 7,290.19 79.08 2,787.16 6,216.05
Total,	705,46	4.05	1,108	,056.10	40	2,592.05

Per centage of increase in anthracite tonnage $57\frac{07}{100}$.

And was distributed as shown by statement below:—

DISTRIBUTION.	1880.	1880.						
	Tons. Cwt.	TONS. CWT.	Tons. Cwr.					
On Line of Road,	20,285.02 3,843.13 125,648.12 223,835.00 19,636.10 256,444.09 14,016.01	26,910.15 4,520.13 165,397.00 421,227.10 12,178.09 404,052.13 16,531.12	6,625.13 677.00 39,748.08 197,392.10 7,458.01 147,608.04 2,515.11					
Junction, Lehigh Valley R. R., For use of Company,	212.11 41,542.07	231.05 2,066.05 54,940.08	231.05 1,853.14 13,398.01					
Total,	705,464.05	1,108,056.10	402,592.05					

The sources of supply and distribution of the bituminous coal tonnage were as follows:—

	1880.		188	1.	Increase & Decrease.		
	Tons.	CwT.	Tons.	Cwr.	Tons.	Cwr.	
Towanda Coal Co., Schræder Coal Co., Long Valley Coal Co., N. Central Ry. (gas coal), .	217,975.02 216,455.16 		219,2 5,1	06.01 280.19 50.01 013.18	2	3,869.01 3,825.03 ,150.01 71.19	
Total,	435,51	6.15	419,5	50.19	15	,965.16	

Percentage of decrease in bituminous tonnage $3\frac{67}{100}$.

DISTRIBUTION OF BITUMINOUS COAL.

	188	30.	188	1.	Increase & Decrease.	
	Tons.	CwT.	Tons. Cwr.		Tons. Cw	
On line of road, To S. Central R. R., To G. I. & S. R. R., To Eric Railway, To L. V. R. R., Used by Company,	163,0 9,9 217,9 41,9	221.04 003.06 053.01 075.02 028.05 435.17	148,4 20,1 199,2 46,9	56.03 43.14 72.01 56.02 03.18 19.01	14 10 18 4	,934.19 ,559.12 ,219.00 ,719.00 ,975.13 183.04
Total,	435,5	516.15	419,5	50.19	15	,965.16

ANTHRACITE AND BITUMINOUS COAL.

Total tons earried one mile:-

. ,	1880.	1881.	Increase & Decrease.		
	Tons. Cwt.	Tons. Cwt.	Tons. Cwt.		
Anthracite, Bituminous,	$60,278,612_{\frac{75}{100}}^{\frac{75}{100}}$ $11,086,376_{\frac{26}{100}}^{\frac{26}{100}}$	$96,205,465_{\frac{2.5}{10.0}} \\ 11,023,385_{\frac{7.8}{10.0}}$	$35,926,852_{100}^{50} \\ 62,990_{100}^{48}$		
Total,	71,364,989100	107,228,851 100	35,863,862,02		

We have hauled over the third rail during the year, with our own engines from Waverly to Buffalo, and intermediate points, $161,150\frac{1}{20}$ tons.

The balance reported as delivered to the New York, Lake Erie and Western Raiload was taken from Waverly by their own

trains.

The amount of anthracite coal transported in box cars during the year was $292,884\frac{1}{2}\frac{4}{0}$ tons, an increase of $132,262\frac{10}{2}\frac{0}{0}$ tons, or $82\frac{34}{100}$ per cent. The amount so carried was $26\frac{43}{100}$ per cent. of our anthracite tonnage. Of this tonnage the amount loaded in ears returnable via Southern Central Railroad was $15,280\frac{92}{20}$ tons, a decrease of $1839\frac{11}{20}$ tons; in cars returnable via Geneva, Ithaca and Sayre Railroad, $38,350\frac{97}{20}$ tons, an increase of $9286\frac{16}{20}$ tons, and in ears returnable via New York, Lake Erie and Western Railroad, $239,254\frac{95}{20}$ tons, an increase of $124,815\frac{95}{20}$ tons.

FREIGHT BUSINESS.

The total amount of freight, exclusive of coal, transported on the road during the year, was $1,057,581\frac{91}{100}$ tons, as against 911,- $468\frac{43}{100}$ tons during the previous year, an increase of $16\frac{03}{100}$ per cent.

The number of tons carried one mile was $85,902,106\frac{43}{1000}$, an in-

erease over the previous year of $9\frac{2}{10}$ per cent.

The average rate per ton per mile on all freight transported during the year was $\frac{82}{100}$ of a cent, a decrease from the rate of the previous year of $\frac{9}{100}$ of a cent, so that, notwithstanding the large

increase in tonnage, our gross receipts from freight transportation show a decrease of $1\frac{6.2}{100}$ per cent. as compared with those of the previous year.

The total tonnage of our road, including anthracite and bituminous coal, and general freight, was $2,585,189\frac{3.6}{10.0}$ tons, an increase of $532,739\frac{9.3}{10.0}$ tons.

PASSENGER BUSINESS.

The total number of paying passengers carried on the road during the year was 212,018, equal to 7,624,280 carried one mile, an increase over last year of $16\frac{23}{100}$ per cent. in number of passengers, and $13\frac{04}{100}$ per cent. in passengers carried one mile. The gross receipts from passenger transportation show an increase of $14\frac{23}{100}$ per cent. compared with previous year.

The average rate per passenger per mile was $2\frac{39}{100}$ cents as against $2\frac{42}{100}$ cents in 1880, and $2\frac{52}{100}$ cents in 1879.

EQUIPMENT.

We have purchased during the year two heavy freight engines, and have increased our car equipment by purchase of 1198 eightwheeled coal cars. Our present equipment is as follows:—

Locomotivo											BY LAST REPORT.	ADDED DURING YEAR.	TOTAL NOW.
Locomotives	3										51	2	53
Wreck and	derrick cor											2	00
Graval anna	deliter car	0	٠.	•	٠	٠	٠			٠	4		4
Gravel cars											31	2	33
Eight-wheel	platform e	cars									57	7	
"	gondola	46		•	•	•	•	•			97	1	58
66	•				٠						210		210
**	stock	"									07		
"	house	66									97	• •	97
"	nouse	• • •		- 1							631		631
**	coal	66									100		
Four-wheel	66	66									103	1,198	1,301
				٠							2,850		2,850
Eight-wheel	caboose	66									6	1	2,000
Four-wheel	66	66					•	•	•	•	U	1	7
44	,			•			٠	٠	٠		28	Less~4	24
" shop t	rucks .										7	4	
								•	•	•	- 6	1	6

TRACK.

The total length of track now laid and in use in main line, sidings, and branches, belonging to this Company is $237\frac{11}{100}$ miles, an increase of $9\frac{99}{100}$ miles laid during the year.

CLASSIFICATION AND MILEAGE OF TRACK.

	MILES.
Main Line, Wilkesbarre to New York State line,	104.30
Second track in use as such,	36.37
Sidings and second track used as sidings,	61.51
Waverly and State Line Railroad and sidings,	3.03
Branch and sidings connecting with G., I. & S. R. R.,	5.74
" " " S. C. R. R.,	4.63
Sidings at Waverly,	.39
" Elmira,	.58
Branch siding connecting with Barclay Railroad,	3.07
Pleasant Valley Branch and sidings,	8.44
Sidings at West Pittston,	1.23
Branch and sidings to coal-breakers,	5.50
Sidings at Sayre shops and round-house,	2.32
- Citaling to help to his property and the same of	
Total miles,	237.11

We have now in use in our main tracks 149.29 miles of steel rails, an increase of 17.30 miles during the year. About three miles of iron rails are still used in the main track and will be renewed during the coming year.

The following materials have been used in repairs of track during the year, viz:—5974 steel rails, 98 frogs, 649 kegs of spikes, 21,120 lineal feet of switch-ties, and 72,623 cross-ties.

We have the road-bed prepared for, and the second track partly laid from Towanda to Wysanking, and expect to have it in use by the last of December. We also have the grading nearly completed for extension of second track from La Grange to Tunkhannock, and hope to have it in use by the first of May next. I think it very important that we should push forward the second track from both directions as rapidly as possible.

Our engines and tracks have both been severely taxed during

the past year.

We have built during the year a spur from the Pleasant Valley Branch, $1\frac{5.5}{100}$ miles in length, to the Mosier breaker, operated by the Butler Colliery Company, over which we commenced hauling coal in February last.

We have the masonry for the bridge across the river at Coxton, completed, and the grading for track to Exeter Colliery, 13,720 feet in length, nearly completed, and hope to have it ready for use early next spring, as soon as the bridge can be erected.

To provide for our increased coal trade, the yard at Coxton should at once be enlarged and remodeled. Should our coal tonage ever exceed that of the past year we would find it difficult, if not impossible, to handle it with any degree of promptness or economy.

The necessity of weighing empty foreign box cars, which are now being loaded with coal for the Western trade, and the great increase in the number of cars moved from this point, in either direction, renders prompt action in the matter imperative.

BRIDGES AND BUILDINGS.

The wooden bridge over Meshoppen creek has been replaced by a new one of iron for double track. The two spans over Lackawanna river, on Pleasant Valley Branch, have been repaired and should now last several years.

The new machine shop at Sayre was occupied about the first of February last, and, although some of the heavier tools have not yet been received, it has been doing very effective work.

I must call your attention to our lack of motive power. been largely dependent on the Lehigh Valley Railroad for the past year, and even with their aid have found it difficult to move the coal and freight offered us. Under this pressure our engines are rapidly being worn out, and without some new locomotives it will be impossible to continue the movement of even the same daily tonnage as during the past year.

We have nearly completed a new passenger depot at Sayre, and expect to occupy it early in the new year. The foundations are prepared for the completion of our round-house at Sayre, and

we hope to have it erected early in the spring.

Very respectfully,

WM. STEVENSON, General Superintendent.

REPORT

OF THE

LEHIGH VALLEY COAL COMPANY.

OFFICERS

OF THE

LEHIGH VALLEY COAL COMPANY.

President,
HARRY E. PACKER.

bice-President,
CHARLES HARTSHORNE.

Creasurer,
ISRAEL W. MORRIS.

Secretary,
JOHN R. FANSHAWE.

General Superintendent, FREDERIC MERCUR.

Office of the General Superintendent, Lehigh Valley Coal Co., Wilkesbarre, November 30th, 1881.

H. E. Packer, Esq., Prest. Lehigh Valley Coal Co.,

DEAR SIR:—The following condensed report of the operations of the Lehigh Valley Coal Co., for the year ending November 30th, 1881, is respectfully submitted.

	1881.	1880.
Amount of coal produced by collieries owned and operated by the Company,	1,508,720	1,386,033
from lands controlled by it,	1,160,819	842,412
Total shipments by this Company and from properties owned or controlled by it,	2,669,539	2,228,445

The above tonnage was almost entirely shipped over the railroads owned and controlled by the Lehigh Valley Railroad Company, and shows a gratifying increase.

The destination of coal produced and shipped by us was as follows—

	1881.	1880.
To The Northern and Western markets,	 630,000 tons	432,533 tons
To Line and Eastern markets,	 878,720 tons	953,500 tons

At all our mines the work of development has been kept well in advance and our collieries are in condition to make an increased output during the coming year, should the market demand such increase.

FRED. MERCUR,

Gen'l Supt.





